At the conclusion of the 1973 Statewide Walnut Farm Advisors' Conference, Dave Ramos assigned me the primary responsibility of developing a method of determining the yield expectation of different varieties from existing records. It was hoped that perhaps such yield information was available in the records of the Diamond Walnut Growers and data collected by farm advisors statewide.

On August 2, 1973, I established a steering committee of farm advisors from each geographical region of the state and Don Watson of the Diamond Walnut Growers, and Harold Forde, Pomology Department, and Extension Specialists Gordon Rowe and Dave Ramos to address ourselves to this problem.

Our deliberations at that meeting led us to two conclusions. One was that there was not adequate information available from records to develop any meaningful factual yield expectation curves. The other conclusion was that in all probability there is more variation between orchards of a single variety, as the result of different management practices, than there is between varieties within certain groups. The three groups proposed were as follows:

- **Group I**: 80% or more lateral pistillate flowering
- **Group II**: 50-80% lateral pistillate flowering
- **Group III**: Less than 50% lateral pistillate flowering

It was proposed that we determine if we could make some generalized statements concerning each group in terms of its expected precocity and yield expectations which would stand the wear and tear of time and criticism.

The steering committee met again on December 7, 1973, to see if we could attempt to make some preliminary statements and yield expectations which we could present to the Walnut Farm Advisors' Conference in January, 1974 for their criticisms and suggestions. In order to temper our estimates with fact, we requested farm advisors in walnut producing counties to send us copies of all yield records they had accumulated by variety and age, and also provide suggestions and criticisms of this concept to guide our thinking.

At the conclusion of the December 7th meeting it was the consensus of the group that not enough factual information was available to substantiate any estimates the group could project.

Other problems considered by the group which added to its ultimate frustration were those associated with differences in tree density per acre,
and the fact that with advancing age at least some varieties within a group, such as Hartley, produce crops in excess of some varieties in groups with a greater percentage of lateral pistillate flowering.

**Walnut Breeding - H. I. Forde**

One hundred forty-six seedling progenies (1971 numbers) were grafted into the test orchard. Three 1967 numbers were grafted into the selection block. Five new crosses were made from which we harvested 446 seeds.

Field notes and nut samples were gathered from trees in test orchards at Davis.

Nut samples were also gathered from the variety and selection block at Davis, and from test plots in various counties. These samples were graded by Diamond Walnut Growers. Results will be published in the February, 1973 Diamond Walnut News.

**Walnut Variety Evaluations - G. S. Sibbett**

Eight walnut varieties were evaluated for kernel yield and quality in Tulare county. Serr was superior in kernel yield, quality and value to UC 59-124, UC 61-25, Vina, Chico, Ashley, Payne, or Tehama respectively.

**Walnut Varieties - W. Schreader, H. Forde, W. Moller**

A sample of a budsport of Hartley and a comparable Hartley sample were the only ones submitted for crackout evaluation this year. The sport originated in the Lloyd Barton orchard in Ripon and a patent is now applied for. It differs from Hartley in that it has a higher kernel content, is earlier in blooming and maturity, and bears heavy crops sooner due to a high percentage of fruitful lateral buds.

Inoculations of the causal agent of phloem bark canker did not produce the disease in either the Hartley trees or the budsport. It is believed the trees may be too young for the disease to occur.

A trial planting established in Lockeford in 1971 was continued. The varieties are 61-12, 61-25, 64-172, Scharsch Franquette, and Waterloo. The objective is to evaluate late blooming varieties for cold riverbottom areas.